COMMONWEALTH OF MASSACHUSETTS

DEPARTMENT OF TELECOMMUNICATIONS AND ENERGY

Investigation by the Department on its own motion into the appropriate regulatory plan to succeed price cap regulation for Verizon New England, Inc. d/b/a Verizon Massachusetts' retail intrastate telecommunications services in the Commonwealth of Massachusetts	DTE 01-31 (Phase II)

PRE-FILED DIRECT TESTIMONY OF JOHN W. MAYO

ON BEHALF OF AT&T COMMUNICATIONS OF NEW ENGLAND, INC.

(PHASE II, Track B)

September 4, 2002

I. INTRODUCTION, QUALIFICATIONS AND PURPOSE OF TESTIMONY

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is John W. Mayo. My business address is Georgetown University, McDonough School of Business, Old North Building, 37th and O Streets, N.W., Washington, D.C. 20057.

Q. WHAT IS YOUR OCCUPATION?

A. I am Dean of the McDonough School of Business at Georgetown University and Professor of Economics, Business and Public Policy at Georgetown University in the McDonough School of Business. I am also the Executive Director of the Center for Business and Public Policy in the McDonough School at Georgetown University.

Q. WOULD YOU PLEASE SUMMARIZE YOUR QUALIFICATIONS?

A. Yes. I hold a Ph.D. in economics from Washington University, St. Louis (1982), with a principal field of concentration in industrial organization, which includes the analysis of antitrust and regulation. I also hold both an M.A. (Washington University, 1979) and a B.A. (Hendrix College, Conway, Arkansas, 1977) in economics.

I have taught economics, business and public policy courses at Georgetown University, Washington University, Webster University, the University of Tennessee and at Virginia Tech (VPI). Beginning in the fall of

1999 and continuing until July 2001, I served as Senior Associate Dean of the McDonough School of Business. Also, I have served as the Chief Economist, Democratic Staff of the U.S. Senate Small Business Committee. Both my research and teaching have centered on the relationship of government and business, with particular emphasis on regulated industries.

I have authored numerous articles and research monographs, and have written a comprehensive text entitled Government and Business: The Economics of Antitrust and Regulation (with David L. Kaserman, The Dryden Press, 1995). I have also written a number of specialized articles on economic issues in the telecommunications industry. These articles include discussions of competition and pricing in the telecommunications industry and have appeared in academic journals such as the RAND Journal of Economics, the Journal of Law and Economics, the Journal of Regulatory Economics, and the Yale Journal on Regulation. A more detailed accounting of my education, publications and employment history is contained in Attachment A.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. As the consequence of the expiration of the current regulatory plan for Verizon's local telecommunications services in Massachusetts, Verizon has been required to propose a new plan for regulation to the Department of Telecommunications and Energy (hereafter, the Department). In "Phase I" of the exercise of transitioning Verizon to a new regulatory plan, the Department considered many of the issues surrounding Verizon's business service offerings. While resolving some of the issues in Phase I, a number of issues pertaining to the regulatory plan for Verizon remain outstanding. For instance, in its recent Phase I Order [D.T.E. 01-31 – Phase I], the Department raised several questions regarding the future of regulation and competition for residential local exchange telephone services in Massachusetts. The purpose of my testimony is to provide to the Department the economic guideposts to address these issues and to make specific recommendations to the Department based on those guideposts.

Q. SPECIFICALLY, WHAT QUESTION RAISED IN THE PHASE I ORDER DO YOU INTEND TO ADDRESS?

A. In the Phase I Order, the Department specifically asks "[W]hat form of Department regulation would (1) ensure just and reasonable rates for residential services; (2) be consistent with our precedent; (3) promote more competition for residential services; and (4) be compatible with our treatment of Verizon's business services" (p. 99) My intent is to address these questions. To do so, I will first provide the Department with the necessary background to properly frame the issues. Then, I will turn to the specific issue of regulation of residential local exchange services.

II. BACKGROUND[1]

[1] Portions of this section are repetitive with testimony I offered in Phase I. This testimony, however, is considered relevant to providing the specific backdrop against which to frame regulatory policies for residential local exchange services, the subject of inquiry in the present phase.

Q. THE DEPARTMENT IS CURRENTLY SEEKING TO ESTABLISH A REGULATORY FRAMEWORK FOR RESIDENTIAL LOCAL EXCHANGE SERVICES THAT WILL ENSURE JUST AND REASONABLE RATES. HOW MIGHT THE DEPARTMENT MOST PRODUCTIVELY MOVE TO ESTABLISH SUCH A FRAMEWORK?

A. As a starting point, the Department must first consider the goals it seeks to accomplish and the extent to which these goals have changed from the past. Also, the Department must consider whether the traditional regulatory framework has been the most effective possible for achieving those objectives and how such a regulatory framework might fare in the face of new goals by the Department. Once these underlying goals are established, the Department can (and should) rely on sound economic principles to establish efficient, specific regulatory mechanisms to accomplish them.

Q. YOU INDICATED THAT THE DEPARTMENT SHOULD IDENTIFY THE GOALS IT SEEKS IN THE ESTABLISHMENT OF A REGULATORY FRAMEWORK FOR RESIDENTIAL LOCAL EXCHANGE SERVICES. WHAT SHOULD THESE GOALS BE?

A. The questions set forth in the Phase I Order listed above provide insight on the Department's objectives. Specifically, the Department has suggested that its goals are the establishment of just and reasonable residential rates that promote competition and are consistent with Department precedent. As discussed in detail below, these goals provide an appropriate foundation for establishing a new regulatory paradigm for residential rates in Massachusetts. As in the past, the Department should seek to establish public policies that, insofar as possible, encourage the efficient and widespread provision of residential local exchange services throughout Massachusetts. However, the Department must now also take steps to ensure that its long-standing goal of promoting competition stands as a pillar of the new regulatory framework for residential exchange services. As I discuss in detail below, this approach is consistent with the requirements of the 1996 Act, the requirement that rates be just and reasonable, and with Department precedent.

In this regard, it is critical to state at the outset that the economic guidelines and policy recommendations I offer are not based on a belief that the current marketplace for residential services in Massachusetts is currently competitive or that it is currently "open" to competition.[2] Rather, the guidelines and recommendations I propose are based on economic and policy considerations aimed at accomplishing the Department's goals of establishing just and reasonable rates that foster residential competition.

[2] The issue of whether the residential retail market is a competitive market was not on the table in Phase I. The Department in its Phase I Order confirmed that it did not make a finding regarding competition in the residential market, because Verizon had not sought market based pricing flexibility for its residential services. *Phase I Order*, at 99. Indeed, in my opinion, the residential market will not be open to competition until at least (a) the proper relationship between TELRIC-based UNE rates and residential retail rates are finally established and (b) CLEC access to (and the pricing of) fiber-fed loops are finally determined.

Q. WHAT FORM OF REGULATION IS CURRENTLY USED IN MASSACHUSETTS?

A. A "price-cap" regime is currently used to regulate local telecommunications rates within the Commonwealth. Like most such plans, the Massachusetts program involved the establishment of maximum charges the monopoly seller can levy for specific services. These prices have then been modified over time, based on fluctuations in overall prices (i.e., inflation) and predicted increases in productivity within the telecommunications sector.

Q. HISTORICALLY, WHY HAS IT BEEN NECESSARY TO REGULATE LOCAL TELECOMMUNICATIONS PROVIDERS IN MASSACHUSETTS?

A. Verizon's predecessors, New England Telephone (NET) and, prior to Divestiture AT&T Massachusetts, historically enjoyed a monopoly in the provision of telecommunications services. Given its monopoly position, both the federal and state governments found it necessary to regulate the rates of the company in order to ensure that the local carrier did not exercise its monopoly power to the detriment of the state's residents and businesses. Indeed, most state-level public utilities laws, including the law established in Massachusetts, give public utility commissions the obligation to ensure that rates are "just and reasonable." In this regard, it is important to note that price regulation is a substitute for rates set by competitive market forces. That is, economists commonly recommend that the rate setting exercise should, insofar as possible, try to establish rates that mimic the rates that would be set by competitive market forces.

Q. HAS PRICE-CAP REGULATION HISTORICALLY BEEN THE DOMINANT FORM OF REGULATION?

A. No. Traditionally, rates for local exchange telephone companies were set within the context of rate-of-return (ROR) regulation. Under ROR regulation, the magnitude of the firm's capital stock or rate base was determined and then rates for the various services offered by the telephone company were established to achieve the "fair" rate of return on those assets. Because the local exchange company offered multiple services, regulators were free to establish rates for individual services that would achieve a fair overall ROR but which would also be seen to further social goals such as the achievement of universal service. The classic model set rates for basic residential local exchange telephone service "residually." That is, rates for other services, for example long distance and carrier access services, were set well above cost in order to maximize the "contribution" to be made toward achieving the overall target ROR for the company. Then, once the contributions from these services were maximized, the rates for residential local exchange service were set at a level as low as possible to achieve the desired return.[3] In this form of regulation, considerable uncertainty existed regarding the appropriate or desired mark-up of access charges that was

[3] In practice, it was often the case that rate cases chronologically reversed the order of the residual price-setting process. That is, local rates were selected, often by slightly raising or lowering the then-current rates, and long distance and access charges were set residually to achieve the desired ROR. Analytically

necessary to "promote" universal service and still allow the firm to earn a fair rate of return.[4] In whichever format was used, the residual pricing methodology led very naturally to a set of largely inefficient prices for the portfolio of telephone services offered by the local exchange company (LEC). In particular, pre-divestiture long distance prices and, post-divestiture access charges and long-distance prices were set at rates that were widely acknowledged to be economically inefficient.[5]

Q. HOW DO ECONOMISTS VIEW ROR REGULATION?

A. Over time substantial and widespread criticism emerged toward ROR regulation. Among these criticisms, it was shown that ROR regulated firms generally have an incentive to invest in inefficiently large amounts of capital and that the ROR regulation provided inadequate incentives for cost efficiencies on the part of the regulated firm. In part because of these inefficiencies and lack of incentives for cost efficiencies, state commissions, including the Massachusetts Department, moved to adopt price-cap regulation. Because, at least in theory, price-cap regulation does not make the fixed price of telephone services dependent on cost,[6]

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there is little difference between the two approaches, both of which are referred to herein as the residual pricing approach.

[4] I use the term "promote" in quotations because this regulatory pricing policy was a failure both in concept and practice as a means of promoting universal service in an economically efficient fashion. See, e.g., "Cross-Subsidization in Telecommunications: Beyond the Universal Service Fairy Tale," Journal of Regulatory Economics, Volume 2, September 1990, pp. 231-250.

[5] See David L. Kaserman and John W. Mayo « Cross-Subsidies in Telecommunications : Roadblocks on the Road to More Intelligent Telephone Pricing, » Yale Journal on Regulation, Vol. 11, Winter 1994, pp. 119-148.

[6] I say "in theory" because the reality is somewhat different. Price cap plans usually run for a short term of years. At the end of the term, a new plan is negotiated with new rates. At that time, all of the traditional questions regarding the firm's costs, revenues and profitability resurface, as indeed they have here. This

the telephone company is provided some financial incentive to reduce costs (and thereby increase profits). In this way, price cap regulation is believed to generate public benefits, as well as benefits to the firm, while still protecting customers from any underlying monopoly power that the LEC enjoys and might otherwise exploit.

Q. DID THE ESTABLISHMENT OF PRICE-CAP REGULATION END THE INEFFICENT PRICING OF LOCAL EXCHANGE AND ACCESS SERVICES?

A. No. In the vast majority of cases where price cap regulation was adopted (including Massachusetts), the initial prices established for the firm's regulated services were those that prevailed under ROR regulation. Over time, the natural forces of price-cap regulation with positive escalators for inflation and negative forces for productivity modified the set of prices but failed to address the fundamental pricing distortions brought about by residual pricing. In particular, the access charges assessed on long distance carriers for the use of local exchange facilities to originate and terminate calling continued to be significantly marked-up above its economic cost, and residential local exchange rates continued to be priced at levels below those warranted by economically inefficiency.

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means that price cap regulation is not likely to remove all of the ill effects of cost-plus regulation. This also means that pricing and investment decisions made in the later stages of a price cap plan are likely to be more distorted that those in the early stages. For preliminary, suggestive evidence, See Rafael Di Tella and Alexander Dyck, "The Costs and Benefits of Commitment: The Chilean Experience with Price Cap Regulation," working paper, Harvard Business School, August 2001. (cited with authors' permission).

Q. IN THE YEARS SINCE PRICE-CAP REGULATION WAS APPLIED IN MASSACHUSETTS, HAVE THERE BEEN REGULATORY CHANGES THAT HAVE AFFECTED THE NEED FOR THIS FORM OF REGULATION?

A. Yes. The passage of the Telecommunications Act in 1996 represented a watershed event in terms of the public policy that is to be directed toward the telecommunications industry. Specifically, the purpose of the Act was to bring the benefits of competition to all telecommunications markets by creating a "pro-competitive, de-regulatory environment." To do so, the Act endowed state and federal regulatory authorities with a host of responsibilities for advancing the goals of the Act.

Q. SPECIFICALLY, HOW HAS THE ACT CHANGED THE MISSION OF THE PUBLIC UTILITY COMMISSIONS?

A. The Act fundamentally altered the forward-going role of regulatory commissions. Much of the language of the Act focuses on the specific mechanisms to open local telecommunications markets; the obligations for network interconnection; the requirements for interLATA entry for ILECs; and the objective of universal accessibility to the internet. Yet in the effort to implement the specifics of the 1996 Act, policymakers must not lose sight of the fundamental way in which it transformed the traditional role and function of regulation.

In particular, the traditional function of regulatory commissions had been one of *disabling the potential ill-effects of monopoly power*. The Act changed this primary role in telecommunications to one of *enabling competition*. That is, a new and fundamental role of regulatory commissions in the wake of the Act is to develop a set of competition-enabling policies that will allow for the introduction and development of competition. Under this new mandate, as competition grows and becomes effective, markets can replace regulation as the primary source of protection of consumers.

Q. HAS THERE BEEN RECENT CLARITY PROVIDED ON THE ISSUE OF THE NATIONAL GOAL OF ENABLING COMPETITION IN TELECOMMUNICATIONS MARKETS?

A. Yes. The United States Supreme Court recently issued an opinion that very clearly and persuasively underscores the fact that the congressional intent of the Telecommunications Act was to alter prevailing regulatory structures as necessary to as fully as possible enable competition. *Verizon Communications Inc., et al v. Federal Communications Commission, et al*., 122 Sup.Ct. 1646 (May 13, 2002). In that regard, Attachment B provides a recently published review of the Supreme Court Opinion for the Department's consideration.

Q. WHAT SPECIFIC IMPLICATIONS FOR RESIDENTIAL TELEPHONE SERVICE POLICIES FLOW FROM THE NEW GOAL AND EMPHASIS ON ENABLING COMPETITION?

A. Residual pricing of residential local exchange telephone services must end. This pricing methodology simply fails to efficiently or effectively accomplish the goal of encouraging the efficient and widespread provision of residential local exchange services throughout Massachusetts.

Q. BUT DON'T LOW RESIDENTIAL RATES PROMOTE THE GOAL OF UNIVERSAL SERVICE BY MAKING TELPHONE SERVICE MORE AFFORDABLE?

A. No. While consumers of residential telephone service (or any product for that matter) would prefer low rates to high rates, the imposition of residually determined, artificially low rates actually are quite harmful to the goal of efficient, widespread provision of residential telephone services in Massachusetts.

Q. **CAN YOU EXPLAIN WHY THE PROVISION OF RESIDENTIAL LOCAL EXCHANGE TELEPHONE SERVICES AT RESIDUALLY DETERMINED LOW RATES IS COUNTERPRODUCTIVE TO THE GOALS OF TELECOMMUNICATIONS POLICY TODAY?**

A. Yes. While I summarize the argument below, Attachment C provides a comprehensive analysis of how the traditional policy of holding residential telephone rates at artificially low levels is both inefficient and ineffective in promoting the goals of telecommunications policies, especially the goals of universal service and the establishment of competition in telecommunications.

III. SPECIFIC ISSUES RAISED IN PHASE I

Q. TURNING TO THE SPECIFIC ISSUES RAISED IN THE PHASE I ORDER, WHAT SPECIFIC ECONOMIC GUIDEPOSTS EXIST FOR THE ESTABLISHMENT OF RESIDENTIAL PRICES, WITHIN THE PARAMETERS ESTABLISHED BY THE TELECOMMUNICATIONS ACT?

A. The Telecommunication Act indicates that a "pro-competitive, de-regulatory" policy framework be established. This means that – while nominally popular with consumers – perpetuation of artificially low residential rates through residual pricing serves as a significant impediment to the achievement of the goals established in the Act.

Q. CAN YOU EXPLAIN?

A. Yes. Prices that do not – at a minimum -- recover the incremental cost of providing a service will simply fail to encourage any other parties to consider entry into the market. In this case, while consumers are nominally "protected" from monopoly through a policy of low prices, such a policy actually acts to prevent the introduction and growth of competition. As described in Attachment C:

> [P]rices that are held below cost in the subsidized sector will tend to discourage all entry, even efficient entry. This latter effect tends to have a self-perpetuating influence on regulation in the affected industry. Specifically, because entry is artificially restricted through the below-cost price realized in the subsidized segment of the market, the incumbent firm will tend to maintain a monopoly in that market, thereby justifying continuing regulation. That regulation, in turn, tends to maintain the cross-subsidy, which prevents the entry, which justifies the continuing regulation. Consequently, not only is competition incompatible with

cross-subsidies, but cross-subsidies tend to distort the competitive process and delay the time when competition arrives.

A necessary (but not sufficient) condition for the emergence and growth of competitors is the removal of regulatory barriers to entry, and there can be no more effective barrier to entry than prices that are lower than the incremental cost of providing a service.

Q. YOU SAY THAT ENDING THE PATTERN OF RESIDUAL PRICING OF RESIDENTIAL TELEPHONE SERVICES IS A NECESSARY BUT NOT SUFFICIENT CONDITION FOR THE EMERGENCE AND GROWTH OF COMPETITION IN RESIDENTIAL EXCHANGE SERVICES. PLEASE EXPLAIN WHAT YOU MEAN?

A. Yes. As noted in Attachment B, even in the wake of the positive impact of the Supreme Court's endorsement of TELRIC pricing and unbundling of network elements, a number of serious obstacles to fully opening local exchange markets to competition exist. These include the pricing of other – non-UNE – inputs that are necessary for new entrants to compete, non-price exclusionary practices by incumbents, the removal of the regulatory "carrot" for good behavior as a consequence of RBOC reintegration into long-distance markets, and ongoing litigation and regulatory uncertainties. These impediments to competition in local exchange markets are discussed in more detail in Attachment B.

Q. HOW SHOULD THESE OBSTACLES BE FACTORED INTO THE DEPARTMENT'S DECISIONS ON THE APPROPRIATE REGULATION OF RESIDENTIAL RETAIL RATES AND SERVICES?

A. Several characteristics of the evolution of telecommunications policy in Massachusetts in general and residential markets in particular make this sector especially vulnerable to efforts by the incumbent local exchange carrier (ILEC) to protect its dominant position through anticompetitive means. For instance, as input prices are transitioned to economically efficient levels the incentive by the ILEC to engage in non-price discriminatory conduct – sabotage – of its new retail stage rivals grows.[7] Thus, the Department must be especially mindful as it transitions to economically rationale pricing policies that its efforts to promote competition are not undermined by non-price exclusionary tactics by the incumbent.

This is particularly important in residential markets because residential customers' appetite for competitive alternatives and the ability of new entrants to secure and retain these customers is especially tenuous. Residential customers spend considerable less than business customers on local telephone services. Thus, while having some affinity for the prospect of competitive alternatives, the resistance to switch carriers is especially sensitive for residential customers. Bad experiences with competitors – whether due to the shortcomings of the new entrant or the incumbent underlying carrier of the wholesale input (here, Verizon) – will quickly quash the residential consumers' appetite for competitive

[7] See T. Randolph Beard, David L. Kaserman and John W. Mayo "Regulation, Vertical Integration and Sabotage", Journal of Industrial Economics, Volume 49, September 2001, pp. 319-334.

alternatives. That is, for the amount of money that residential consumers spend on local exchange telephone services, it is simply not worth the hassles for them to repeatedly test the competitive waters, especially should the customer not have a positive initial experience with competitors. Moreover, any sabotage that does occur in residential exchange services is likely to be long-lasting and widespread, because the "reputation" of the new entrants' larger portfolio of telecommunications services (*e.g.*, long distance) may be damaged as well.

Q. IN ITS PHASE I DECISION, THE DEPARTMENT TENTATIVELY CONCLUDES THAT "WE SHOULD ALLOW PRICING FLEXIBILITY WITHIN A RANGE ENCOMPASSING A PRICE FLOOR OF INCREMENTAL COST AND A CEILING OF STAND-ALONE COST." DO YOU AGREE WITH THE DEPARTMENT'S CONCLUSION?

A. Prices that exceed stand-alone cost are both inefficient and arguably unfair to consumers. Moreover, prices that are set to exceed stand-alone costs are likely to induce entry even where the new entrant is less efficient than the incumbent in the provision of the service. For this reason, prices in excess of stand-alone costs should, indeed, be removed as a pricing option. Similarly, prices below the incremental cost of providing residential local exchange services are inefficient. Thus, while not providing specific or precise guidance on pricing, the bounds suggested by the Department are appealing.

Q. ARE THERE REASONS TO NARROW EVEN FURTHER THIS RANGE OF PRICES FOR VERIZON'S RESIDENTIAL LOCAL EXCHANGE SERVICES?

A. Yes. The stand-alone cost of providing residential local exchange services is likely to be quite high and would certainly allow for the extraction of considerable amounts of consumer surplus, as permitted by the degree of market power retained by Verizon. This would be both inefficient and result in an unwarranted transfer of wealth from consumers to the shareholders of Verizon. At the same time, as long as the prices charged to competitors for inputs necessary to compete in telecommunications markets in Massachusetts are held above the incremental cost Verizon incurs in the provision of these services, a price floor that reflects only Verizon's incremental cost creates the very real prospect that efficient competitors will be artificially excluded from this market. On the lower side of the range, therefore, the minimum price should be based on the charges that Verizon imposes on its competitors for all of the imonopoly inputs, plus Verizon's retailing costs.

Q. IN LIGHT OF THE DIFFICULTY OF USING A PRICING RANGE BASED ON A MINIMUM OF INCREMENTAL COST AND A MAXIMUM OF STAND-ALONE COSTS, WHAT IS YOUR ASSESMENT OF THE DEPARTMENT'S TENTATIVE CONCLUSION TO LIMIT PRICE INCREASES TO NO MORE THAN FIVE PERCENT PER YEAR?

A. The upward pricing flexibility suggested by the Department is not unreasonable. By limiting the price increases, the price-escalator cap certainly provides minimal pricing adjustments and disruptions to consumers. At the same time, however, by limiting the potential for price increases to no more than five percent per year, this rule could prove to continue to be an impediment to the development of competition in the provision of residential local exchange services in Massachusetts.

Q. HOW MIGHT THE FIVE PERCENT CAP ON PRICE INCREASES FOR BASIC RESIDENTIAL SERVICE PROVE TO BE AN IMPEDIMENT TO COMPETITION IN MASSACHUSETTS?

A. Fully enabling local exchange competition in Massachusetts is a function of policies designed to provide access to, and price correctly, the inputs that are necessary for new entrants to compete, as well as policies aimed at establishing appropriate retail prices. In this regard, it is essential that input prices (e.g., UNEs, switched and special access rates) reflect the economic cost of their provision. At the same time, unless Verizon's retail residential rates are permitted to reflect – minimally – the economic cost of providing basic residential service then new entry will not be forthcoming and competition will wither. Thus, even in the presence of correctly priced inputs it is possible that the cap of a five percent per year rate increase may be insufficient to engender competition.

Q. IN LIGHT OF THIS POTENTIAL FOR THE FIVE PERCENT LIMIT ON PRICE INCREASES TO CONSTRAIN THE EMERGENCE OF COMPETITION, WHAT POLICY OPTIONS ARE AVAILABLE?

A. Two options are apparent. First, along with actions designed to price inputs correctly, the Department may wish to modify the retail residential price escalator cap to, say, 10 percent per year for the next three years. This would permit Verizon to set rates for basic local exchange service that are more likely to reflect the economic cost of providing residential local exchange service in Massachusetts. It is critical, however, if this option is pursued that input prices and access for new entrants be established and operational in a manner fully consistent with permitting efficient new entrants the opportunity to compete for retail customers.

Q. WHILE MODIFYING THE RETAIL RESIDENTIAL RATE PRICE ESCALATOR TO 10 PERCENT OVER THREE YEARS MIGHT ENHANCE THE PROSPECTS FOR COMPETITION, WOULD THIS BE CONSISTENT WITH THE DEPARTMENT'S OBJECTIVE OF SETTING JUST AND REASONABLE RATES?

A. Yes, this would be completely consistent with the goal of just and reasonable rates. As I have described above, the worst case for Massachusetts consumers would be a formula that would allow for rate increases, but still failed to reflect the economic cost of providing basic residential service. In this situation, consumers will pay more to Verizon without having competitors in market to create competitive benefits for Massachusetts consumers. The key is that under a slightly more aggressive transitional plan, the Department may have increased assurances that, despite the larger ***potential*** price increases permitted, competitors and competition will provide a meaningful check on Verizon's upward pricing. Without such policies in place, the legitimate concern will arise regarding the ability of Verizon -- free from the full disciplines of enabled competition – to exploit market power in the provision of local exchange services.

Q. WHAT IS THE SECOND OPTION TO GUARD AGAINST THE POSSIBILITY THAT THE FIVE PERCENT LIMIT COULD CONSTRAIN THE EMERGENCE OF COMPETITION?

A. The second option, specifically established in the Department's Phase I Order, is for the Department to undertake an examination of the relationship of UNE rates to residential retail rates. This examination is critical, for if it reveals that the rates for UNE inputs necessary to compete exceed the residential retail rates charged by Verizon, then the prospects for the emergence of widespread competition are eliminated. This examination should proceed immediately upon the establishment of final UNE rates, as the appetite for competitive entry and support from financial markets for such entry is at this point tenuous. Obviously, if this examination reveals that retail rates lie below the cost imposed on competitors to enter the market, then some combination of downward adjustments to UNE rates and upward adjustments to retail rates will be immediately necessary for the Department to carry out the national goal of enabling competition.

Q. CONSIDERING THE VARIOUS RISKS ASSOCIATED WITH THE PRICE ESCALATOR, WHAT IS YOUR RECOMMENDATION?

A. In light of the fact that residential rates have been severely constrained for some time and the threat to the emergence of competition from the very limited (five percent) price escalator option, I recommend that the Department modify the potential escalator to 10 percent per year for the next three years. I also strongly recommend that the Department proceed very quickly to consider the relationship of retail residential rates and the UNE rates and, as it suggests in its Phase I Order, "take appropriate steps to remedy the inefficiency" should retail rates be found to lie below UNE rates. I understand that the Department has stated that it intends to address any wholesale/ retail disparity in the context of the current proceeding. *See, Phase I Order*, at 103. Therefore, it is critical that the DTE await the final outcome on UNE rates, as it will then be in a better position to issue informed findings on the appropriate retail residential price escalator to meet its goals of establishing just and reasonable rates that will foster competition.

Q. DOES YOUR RECOMMENDATION THAT THE DEPARTMENT CONSIDER THE WHOLESALE/RETAIL PRICE RELATIONSHIP IN DETERMINING THE RETAIL RESIDENTIAL PRICE ESCALATOR OBVIATE THE NEED FOR A PRICE FLOOR?

A. No. Giving Verizon the *option* of increasing its retail prices by up to 10% does not obviate the need to *require* Verizon to set its retails prices at a minimum of

TELRIC-based UNE costs plus the (retail) costs that Verizon incurs to provide the non-UNE portions of the retail service.

Q. BUT DON'T THE PRICE INCREASES MADE POSSIBLE UNDER THE VERIZON PLAN ERODE THE COMMITMENT TO UNIVERSAL SERVICE IN MASSACHUSETTS?

A. No. Household subscription to telephone service in Massachusetts is quite high and is in no danger of eroding in the face of moderate price increases, should they occur. The vast majority of Massachusetts households are fully able and willing to pay the full costs that they impose on Verizon for their subscription to the public switched network. Some households are at risk, but it is possible to identify these and to target assistance (subsidies) toward these households. By targeting such assistance rather than maintaining a grossly inefficient system of perpetuating artificially low prices to all households, the subsidy mechanism can be made to deliver more punch, precisely where it is needed.[8]

Q. SHOULD THE DEPARTMENT REEXAMINE ITS UNIVERSAL SERVICE POLICIES IN THE WAKE OF PERMITTING SOME UPWARD MOVEMENT IN BASIC RESIDENTIAL EXCHANGE RATES?

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[8] For a study of the effectiveness of targeted versus untargeted subsidy mechanisms in telecommunications, see "Targeted and Untargeted Subsidy Schemes: Evidence from Post-Divestiture Efforts to Promote Universal Telephone Service," (with Ross Eriksson and David L. Kaserman) Journal of Law and Economics, Vol. 41, October 1998, pp. 477-502.

A. Yes. As residential local exchange rates are permitted to increase, a wise step by the Department would be to follow this Phase II proceeding with an investigation of how the Department might efficiently pursue the goal of maintaining universal service as the Commonwealth transitions to a competition-enabling regulatory framework. As I have indicated, Attachment C provides what I believe are sound guiding principles for such an inquiry.

Q. HAVE YOU CONSIDERED OTHER PRICE SETTING MECHANISMS FOR THE TREATMENT OF RESIDENTIAL RETAIL RATES IN MASSACHUSETTS.

A. Yes. First, traditional cost of service regulation seems to be an option. For reasons described in Section II above, traditional ROR (cost of service) regulation is, however, an unattractive option for the pricing of residential local exchange services in Massachusetts. Second, I agree with the Department's conclusion (in light of the tradition of residually pricing residential local exchange telephone services) that price cap regulation is unlikely to advance the goals of telecommunication policy in Massachusetts.

Q. THE DEPARTMENT CONCLUDES IN ITS PHASE I ORDER THAT "LOWERING ALL WHOLESALE SERVICE RATES CLOSER TO INCREMENTAL COST IMPROVES EFFICIENCY, PROMOTES COMPETITION, AND CREATES A CONSISTENT ECONOMIC

FRAMEWORK FOR ALL WHOLESALE SERVICES." (P.63) DOES THIS HAVE IMPLICATIONS IN THE PRESENT PROCEEDING?

A. Yes. Both switched and special access are vital inputs that are necessary for competitors to compete. A critical output of this proceeding should be the establishment of economic-cost based pricing of these vital inputs. As indicated by the Phase I Order, the Department clearly anticipates just such an action as it stated "the Department will price intrastate special access services in the same manner as UNEs" (p. 62) and "the Department will reduce switched access charges to their economically efficient levels in Phase II of this proceeding to promote economic efficiency and competition for intrastate toll…."(p. 63)[9]

Q. IS A REDUCTION IN INTRASTATE SWITCHED ACCESS RATES TO INTERSTATE LEVELS SUFFICIENT TO PROMOTE ECONOMIC EFFICIENCY?

A. No. My understanding is that interstate access charge rates continue be set at rates that exceed the economic cost of providing access. Accordingly, the relevant target for the establishment of economically efficient, competition-enabling intrastate access charges in Massachusetts is the economically efficient rate as approximated by the Total Element Long Run Incremental Cost (TELRIC). Moreover, not only will establishment of this rate be economically efficient but it also will eliminate the unsupportable differences that currently

[9] I expect that by "economically efficient" here the Department is referring to the economic (incremental) cost of providing switched access service, which is the same as the benchmark for the establishment of UNE rates. For an extended discussion of the merits of pricing access services in this manner, see pp. 36-50 in my testimony in the Phase I proceeding.

exist in pricing between access provided to long-distance providers and the essentially identical access provided to competitive local exchange carriers when , in fact, the service and costs are the same regardless of the party receiving the service.

Q. IS THE DEPARTMENT'S CONCERN ABOUT WHERE VERIZON SHOULD RECOVER ITS JOINT AND COMMON COSTS A REASON NOT TO REDUCE SWITCHED ACCESS CHARGES TO THEIR ECONOMICALLY EFFICIENT LEVELS.

A. No. In its Phase I Order, the Department suggested that Ramsey pricing principles provide the basis upon which recovery of joint and common costs might be recovered. When properly framed and applied, the principles of taxation first articulated by Frank Ramsey and later brought into the regulatory pricing arena are sound and may guide decisionmaking. It is, however, necessary to be clear about the underlying economic structure in order to ensure that the pricing principles are not mistakenly misapplied. In particular, the industry that provides the basis for Ramsey pricing is assumed to be a declining-cost, regulated natural monopoly. In this context, the first-best efficient price is marginal cost, but that price yields revenues that are insufficient for the firm to remain financially viable. Consequently, the method identified first by Professor Ramsey asks how retail prices might be adjusted upward from the economically efficient levels so as to minimize distortions to economic efficiency while simultaneously ensuring that the firm recover its costs. In this quasi-optimal situation, price mark-ups above marginal cost that vary inversely with the goods price elasticity of demand are found to be desirable.

While compelling in the specific market structure assumed by the regulated natural monopoly model, considerable care should be exercised before applying Ramsey pricing principles. For instance, if the industry is not a declining cost natural monopoly then it is quite possible that first-best marginal cost pricing is compensatory. Moreover, as I described in my Phase I testimony (see p. 50), fundamental economic principles require that retail, not wholesale (or input) prices be raised above economically efficient levels in order to recover joint and common costs. Increasing intermediate product prices above efficient levels creates distortions in downstream production processes that must ultimately be borne by consumers, no matter who they choose for their retail service.[10] Thus, rather than applying through regulatory fiat a set of pricing principles that may be inconsistent with the underlying assumptions of the Ramsey model, I recommend that the Department focus its attention on ensuring as best it can that virtually all competition-enabling policies are in place – including efficient input pricing, which in this case means TELRIC pricing for access.[11] By doing so,

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[10] For further discussion and context regarding why the prices for access services should be reduced to economically efficient levels, please see pages 36-50 of my pre-filed testimony filed on August 24, 2001, in Phase I of this case.

[11] Establishing for Verizon's residential retail services (a) economically efficient input prices for competing providers and (b) a price escalator for Verizon's residential retail services should be the Department's focus. The Department should not be concerned with ordering Verizon to "make up" revenue losses in one area with price increases in another. Specifically, in the Phase I Order (p. 63) the Department indicates that "One consequence of this reduction [of switched access service rates] and the reduction in special access rates is that the revenues from access services that used to subsidize dial-tone rates must be made up by increasing residential dial-tone rates…" This "must be made up" logic is reminiscent of the mindset of residual ratemaking, and is not relevant to the current regulatory context in which the Department is attempting to transition to a competitive residential marketplace. Specifically, input prices should be established at their economically efficient levels. Residential retail rates should be

competition has the opportunity to take seed and grow, enabling the competitive marketplace, not regulators to figure out which services shall be responsible for the recovery of the firm's joint and common costs.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

established so that they are generally subsidy free. The underlying economic rationale for these two policies are independent, and reductions in the former have no logical connection to the latter in a regulatory framework of enabling competition. Only in the by-gone era of ratemaking in which policymakers sought "to keep the Company whole" would such logic apply. In the current context, this logic sacrifices both economic efficiency and competition in the process. Thus, while I fully support the Department's agenda to establish economically efficient rates for wholesale inputs, and I support establishing subsidy-free basic residential rates I caution the Department to not perpetuate the cost-of-service, "make-whole" logic of linking these two sets of prices.